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ABSTRACT

A summary of the results of language arts and mathematics achievement tests that were administered to approximately 20,000 third and sixth grade students in Department of Defense Dependent Schools, this report provides a description of the testing objectives, assessment procedures, and achievement standards for the project and offers a brief analysis of three of the four tests. Bar graphs indicate third grade students' performance in six language arts content areas and 11 mathematics content areas. Graphs on sixth grade students' performance measure ten content areas in language arts and 14 content areas in mathematics. Viewed across all of the content areas, students scored above all of the desirable standards set by the school system. (MAI)

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Summary Results Of The DoDDS Language Arts And Mathematics Assessment Grades 3 And 6 1978

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Summary Results Of The DoDDS Language Arts and Mathematics Assessment Grades 3 and 6, 1978

The Department of Defense Dependents Schools (DoDDS) administered the Language Arts and Mathematics survey achievement tests to approximately 20,000 pupils in the three region's schools during May 1978. This report presents a summary of the results.

Background

The survey achievement tests were jointly developed by DoDDS and the Westinghouse Learning Corporation. The tests focus on program evaluation and measure pupil achievement in Reading, Language Arts, and Mathematics. Each of the sub-tests contain tests items measuring specific DoDDS program objectives. Approximately 100 test items were developed to measure pupil achievement for each of the three sub-tests.

Procedures

A sampling technique was employed which gathered pupil assessment data against all 300 test items. However, each pupil was required to respond to only 50 sampled items. The data collected using this sampling procedure provide reliable and valid group performance information. They do not, however, allow for reporting individual pupil and classroom results. Scores are reported for the school, the region, and for the entire DoDDS school system.

Standards

Curriculum specialists and teacher groups from within DoDDS established minimally acceptable and desirable levels of achievement for each test item. These standards were aggregated to yield a program expectancy range for each of the sub-content areas or program objectives. The lower end of the program expectancy range represents the minimally acceptable group performance level. A group score at or below this level would indicate a weakness area for this component of the Language Arts or Mathematics curriculum. The upper end of the range represents desirable or optimal levels of group achievement. Group scores falling at or above this end of the range would indicate program strength areas.

Many of the test items supplied by Westinghouse had been administered to a selected sample of sixth grade students in school districts across the country. The aggregated scores for this group of sixth graders are presented next to the DoDDS scores as one means of comparing performance. In all cases, except one, DoDDS pupil performance exceeded that of the comparison groups. The comparison group's scores also allow for some judgment concerning the validity and accuracy of the pre-set program expectancy ranges.

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Third Grade

Language Arts

Pupil performance results for the six content areas tested by the third grade Language Arts sub-test are presented in Table 1. For all six areas DoDDS third grade pupils continued in 1978 to score above the desirable standards set by the school system. The aggregated performance in the four traditional reading content areas, interpretation, comprehension, word meaning and structure, and sound to symbol relationships, suggest a relatively high level of achievement in reading for the 10,000 + pupils who were administered this test. A thorough follow-up of performance on each item for each of the content areas should substantiate this interpretation. The group performance on the items comprising the spelling and study skill areas is also strong, particularly when compared to the program expectancy range set for these content areas.

Mathematics

Viewed across the eleven content areas tested (Table 2), third grade mathematics achievement was generally at or above the upper limits of the expectancy ranges set. This is consistent with the previous year's results. The aggregated results for the five basic computation skill areas, numeration, addition, subtraction, multiplication and division, suggest continued strong group performance; the exception was subtraction, where results continued within the middle of the band. Again, a full item analysis for each content area will yield a more definitive interpretation..

Table 1. Grade 3 Language Arts

Grade 3

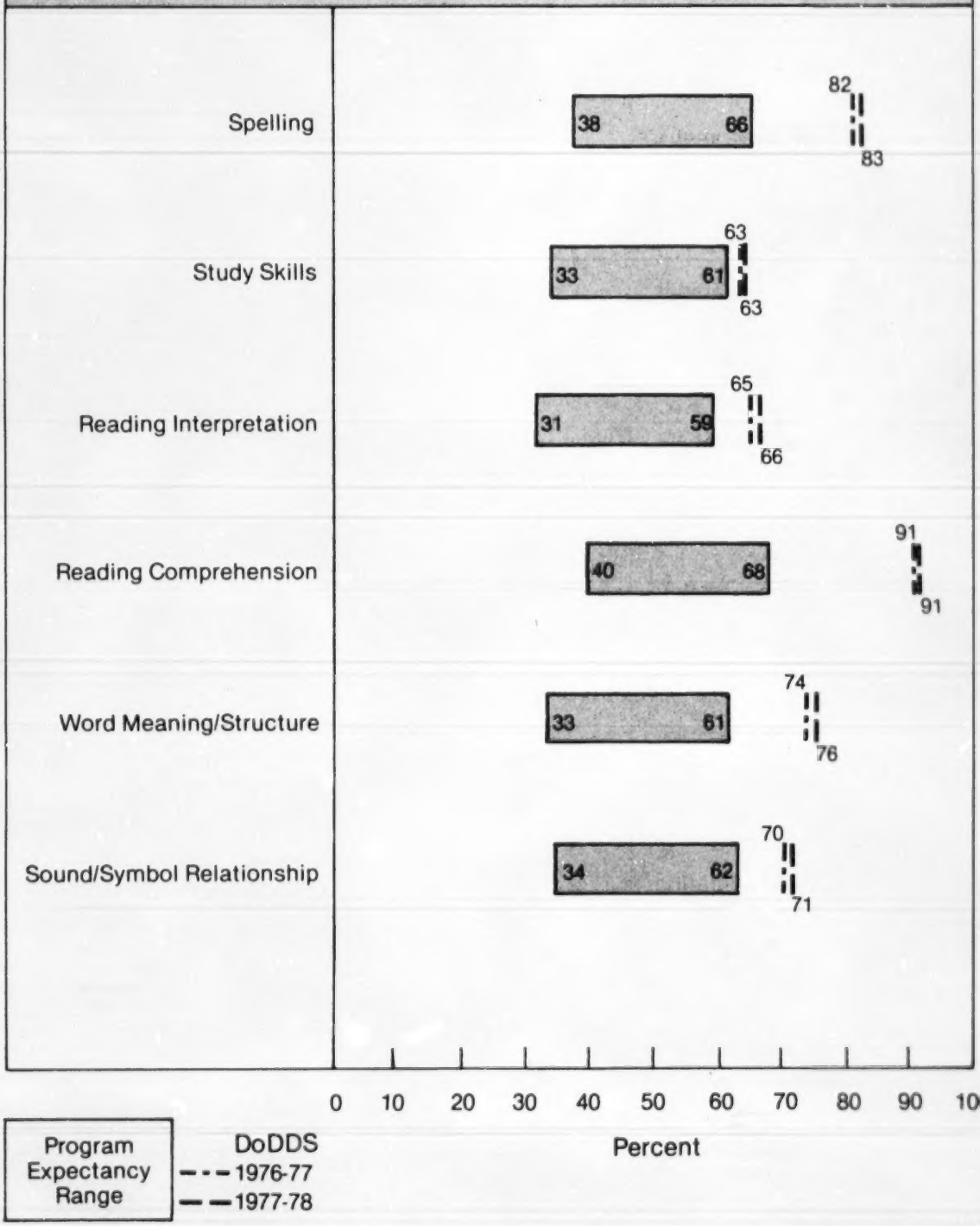
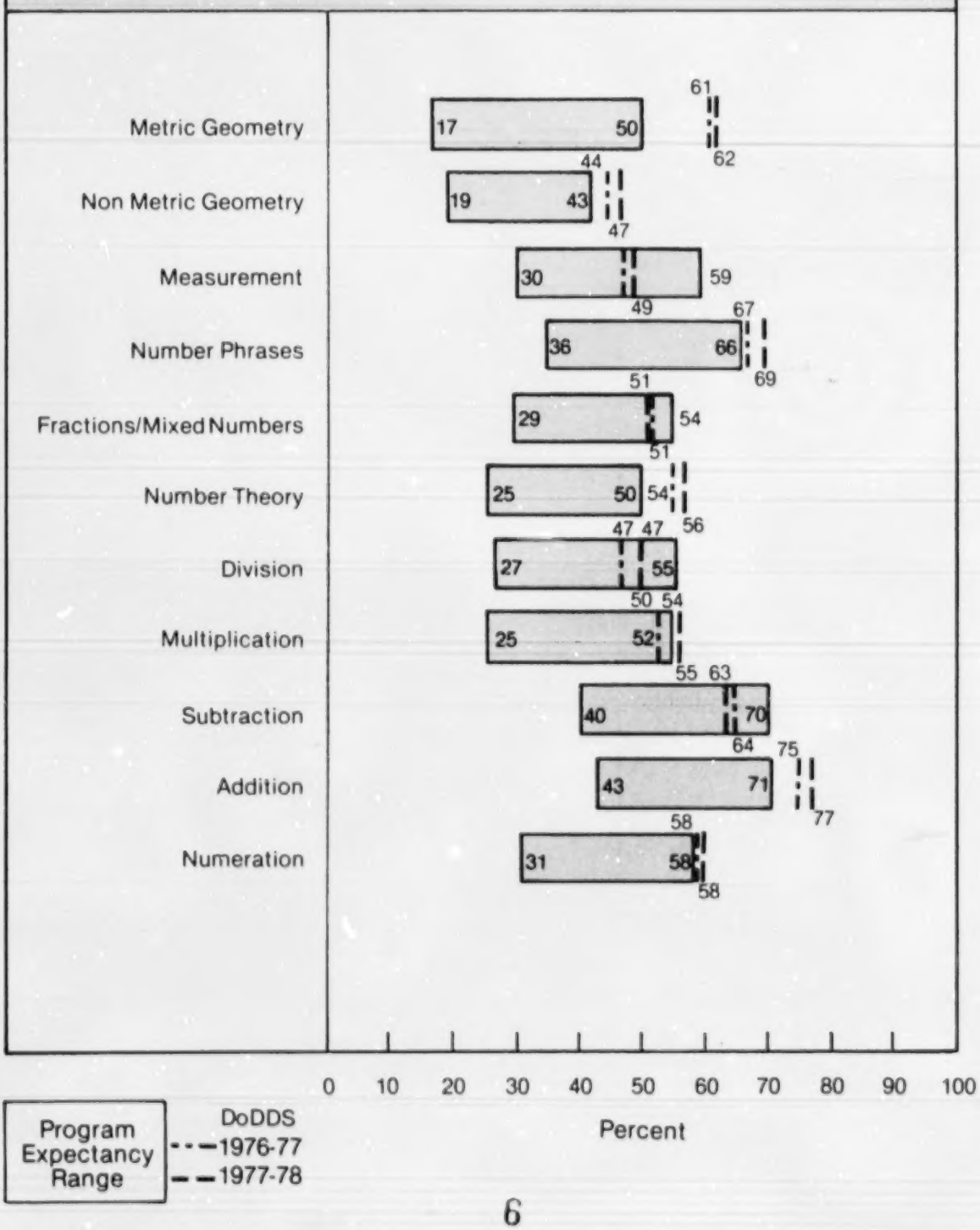


Table 2. Grade 3 Math

Grade 3



Sixth Grade

Language Arts

Ten content areas were assessed in the sixth grade Language Arts sub-test (Table 3). For the two content areas directly representing reading skills, comprehension and word meaning and structure, pupil performance for both years was significantly above that of a representative U.S. population. In addition, this performance was at or above the desirable expectancy levels set. For the remaining Language Arts content areas, DoDDS pupil performance exceeded that of the comparison groups. Results for writing skills, usage, spelling and capitalization suggest strong achievement levels for these areas, particularly when the DoDDS performance is compared with that of the comparison groups and the standards set by the school system. The relatively poor performance in the sentence patterns and sentence components content area requires further item analysis. One explanation may be the items themselves, which use traditional grammer terminology no longer used in the elementary schools to teach about the structure of English. The fact that a representative U.S. population had similar difficulty with this set of items gives some evidence of support to the interpretation. In general, DoDDS pupil performance approached or exceeded the desirable levels of achievement established to evaluate the Language Arts program. Only in the content areas of sentence patterns and punctuation does the DoDDS performance depart from the upper levels of the program expectancy ranges.

Table 3. Grade 6. Language Arts

Grade 6

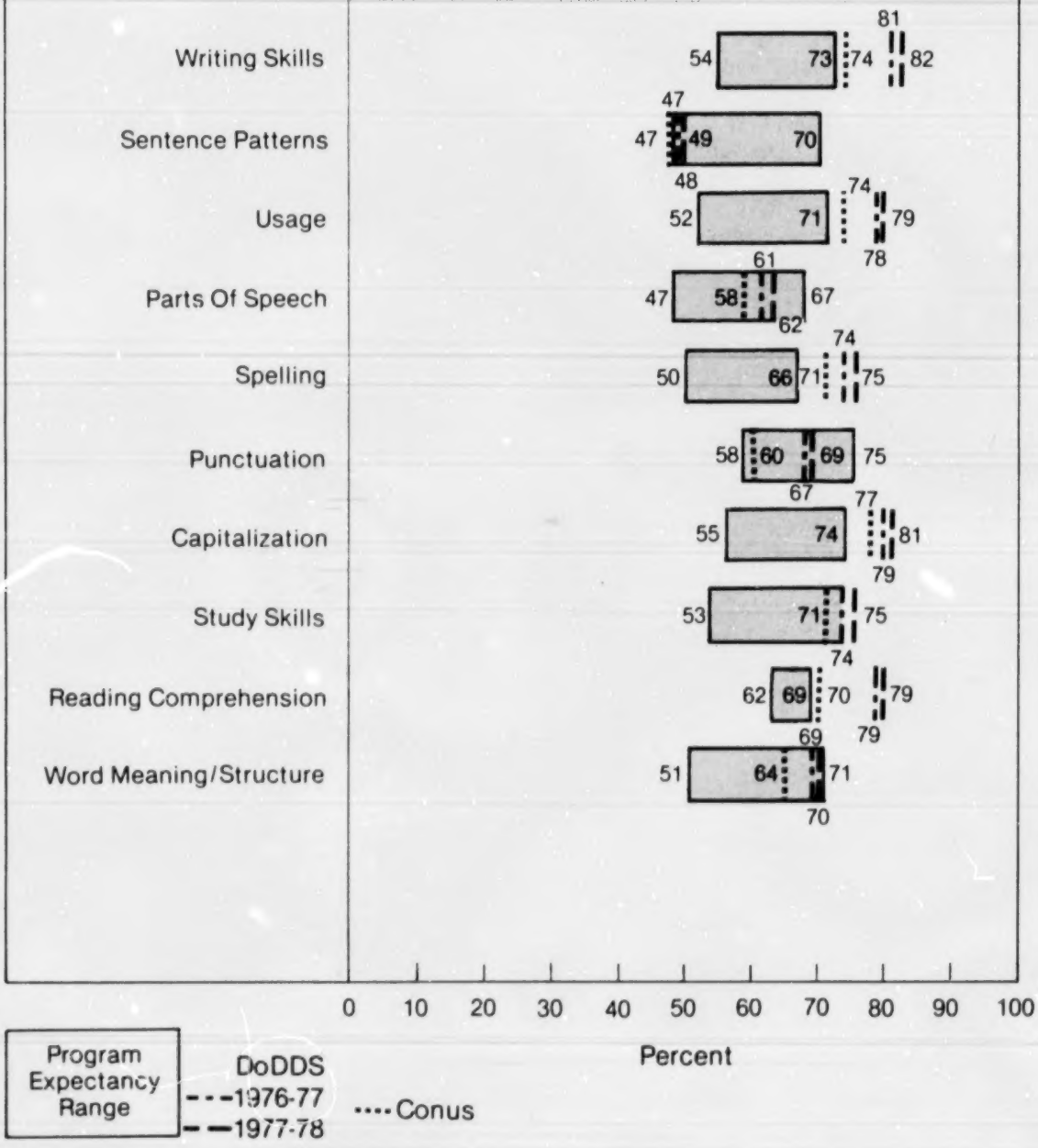


Table 4 Grade 6. Math

Grade 6